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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/286,119	04/02/1999	ITALO GOFFI	ITALO-ET-AL-	4550

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EXAMINER

LORENZO, JERRY A

ART UNIT

PAPER NUMBER

1734

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23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/286,119

Applicant(s)

GOFFI ET AL.

Examiner

Jerry A. Lorengo

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-29 and 35-52 is/are pending in the application.
- 4a) Of the above claim(s) 22-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1734

DETAILED ACTION

(1)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 35, 37, 40 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,893,964 to Claveau in view of U.S. Patent No. 4,314,814 to Deroode.

With specific regards to applicant claims 35 and 51, Calveau discloses a method and apparatus utilizing an envelope assembly comprising (Figures 8-11; column 3, lines 23 to column 4, line 15):

- (1) Providing an envelope enclosing means 4', into which an article 2 is received;

Art Unit: 1734

(2) Sucking air from an open end of said envelope by a sucking means 75 thereby causing the transfer supports 31,31" to intimately contact and enclose (adhere to) the article 2;

(3) Heating the article 2 and envelope means, including the transfer supports 31,31" in a heating means to transfer a pattern carried on the transfer support 31,31" to the article 2; and

(4) Wherein the open end of the enveloping means is geometrically defined by the edge portions of the transfer supports 31,31".

Although Claveau discloses method and apparatus for decorating articles by transfer utilizing an enveloping assembly, he does not specifically disclose, as per applicant claims 35 or 51, that the enveloping means comprises, is itself, the transfer support.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the methods and apparatus of Claveau with a transfer support which functions itself as both an enveloping or covering means motivated by the fact that Deroode, also drawn to methods and apparatus for heat and vacuum transfer decorating, discloses that the transfer support 15 may comprise a flexible support skin which carries the pattern 16 to be transferred to the article 10 (Figures 1-8; column 4, lines 5-24). Furthermore, the skilled artisan would have been motivated to substitute the multi-layer enveloping or covering means of Claveau with the single elastic transfer support of Deroode motivated by the fact that a single transfer support would represent increased economy due to its single layer nature and which would be easier to utilize and handle.

Regarding applicant claim 37, Claveau discloses that the transfer support comprises a first transfer support 31" placed above the article 2 and a second transfer support 31 placed below the transfer support (Figure 9).

Regarding applicant claim 40, although neither Claveau nor Deroode specifically disclose that the transfer support is removed handling and/or installation, the skilled artisan would have appreciated the advantages of leaving the transfer film in place until utilization by the end use motivated by the fact that the transfer support would protect the decorated surface from marring by scuffs, scrapes and bumps during the time period between application, storage and final use. Furthermore, the skilled artisan would have appreciated the utility of leaving the transfer support in place until final use motivated by the fact that it is well known in the art that decorative bezels

Art Unit: 1734

are commonly provided with a removable plastic protective film that remains over the bezel until removed by the end user.

(2)

Claim 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as combined in section (1), above, in further view of U.S. Patent No. 6,136,126 to Fenzi.

Although the references as combined in section (1), above, disclose the overall method and apparatus of the instant invention, they do not specifically disclose, as per applicant claims 47 and 49, the times and temperatures utilized in the heating steps.

Nonetheless, the claimed times and temperatures would have been obvious to one of ordinary skill in the art at the time of invention motivated by the fact that Fenzi, also drawn to methods and apparatus of heat and vacuum transfer decorating by way of an enveloping means, discloses that the temperature and time parameters utilized during the heating step may be up to 280°C and from 30 seconds to 30 minutes, respectively (column 2, lines 57-51).

(3)

Claims 42, 44 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as combined in section (1), above, in further view of U.S. Patent No. 4,923,847 to Ito et al.

Deroode, as combined in section (1), above, discloses a method for the sublimation transfer decoration of a substrate by way of a heat and vacuum pressure. Although he discloses that the support film 15 making up the transfer support may be comprised of materials such as polypropylene, polyester, silicone, and polycarbonic materials such as PTFE (column 4, lines 18-20), he does not specifically disclose, as per applicant claims 42, 44 and 46, that the support material 15 is composed of a thermoformable plastic material such as polyvinyl alcohol.

Ito et al., however, also drawn to thermal transfer methods, discloses a transfer support which comprises support or base film 1 on which is carried a transfer dye. Ito et al. discloses that the base film 1 may comprise papers or films such as condenser paper, aramide film, polyester film, polystyrene film, polysulfone film, polyimide film, *polyvinyl alcohol film* (emphasis added), and cellulose films (column 4, lines 65-68; column 5, line 1; Figure 1).

Art Unit: 1734

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize a thermoformable plastic material such as polyvinyl alcohol film, as taught by Ito et al., in place of the films (polyester, etc.) disclosed by Deroode motivated by the fact that Ito et al. discloses that polyvinyl alcohol films are known for use as supports for sublimation transfer films and furthermore by the fact that Deroode discloses that it is self-evident that other materials besides those disclosed by him may be used (column 4, lines 21-23).

Although the references as combined in section (1), above, disclose a method for the sublimation transfer decoration of a substrate by way of a heat and vacuum pressure, they do not specifically disclose, as per applicant claim 46, that the artifact is vacuum wrapped and heated in a preliminary step prior to transfer in order to achieve thermoforming of the sublimable color transfer support against the substrate to be decorated.

Deroode, however, does disclose that the sublimable color transfer support is preheated prior to its vacuum placement against the substrate followed by intimate contact by the application of vacuum pressure followed by continued heating in order to bring about complete sublimation transfer of the decoration from the sublimable color transfer support to the substrate (column 7, lines 1-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to supply a separate and preliminary heating and vacuum wrapping step prior to the actual heat and vacuum transfer motivated by the fact that the preliminary heating of the sublimable color transfer support would render it more flexible (as it is a thermoplastic) thus ensuring intimate contact between it and the substrate to be decorated and thereby increase the effectiveness of the sublimation transfer itself.

(4)

Claims 36, 38, 39, 41, 48, 50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,136,126 to Fenzi in view of U.S. Patent No. 4,314,814 to Deroode and U.S. Patent No. 5,641,372 to Okuno.

With specific regards to applicant claims 36 and 52, Fenzi discloses a method and apparatus utilizing a covering and work bench assembly comprising (Figures 1 and 4; column 2, lines 31-61; column 5, lines 6-23; column 5, lines 45-61):

(1) Covering an article 1 resting on a work bench means 7 with a covering means 2,3,4,5;

(2) Sucking air from between the covering means and the work bench means by way of a sucking means 6,8 such that a transfer support 2 intimately contacts and encloses (adheres to) the article 1;

(3) Heating the article 1 and the covering means, including the transfer support, to transfer a pattern carried on the transfer support 2 to the article 1; and

(4) Wherein the step of covering the article 1 with the covering means comprises laying the covering means, including the transfer support over the article with the covering means also placed beyond its periphery such that the sucking of the air is achieved through a plurality of holes 6 in the work bench means 7 thereby enabling the covering means to intimately contact the work bench means 7.

Although Fenzi discloses method and apparatus for decorating articles by transfer utilizing a work bench assembly, he does not specifically disclose, as per applicant claims 36 and 52, that the enveloping or covering means comprises, in itself, the transfer support.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the methods and apparatus of Fenzi with a transfer support which functions itself as both an enveloping or covering means motivated by the fact that Deroode, also drawn to methods and apparatus for heat and vacuum transfer decorating, discloses that the transfer support 15 may comprise a flexible support skin which carries the pattern 16 to be transferred to the article 10 (Figures 1-8; column 4, lines 5-24). Furthermore, the skilled artisan would have been motivated to substitute the multi-layer enveloping or covering means of Fenzi with the single elastic transfer support of Deroode motivated by the fact that a single transfer support would represent increased economy due to its single layer nature and which would be easier to utilize and handle.

Furthermore, although Fenzi does not specifically disclose that the transfer support 2 extends beyond the periphery of the article such that the sucking step pulls the transfer support into intimate contact with the work bench, the skilled artisan would have appreciated that the transfer support of Fenzi could be extended beyond the periphery of the article, along with the covering means, motivated by the fact that Okuno, also drawn to heat and vacuum transfer decorating, discloses that it is known to utilize a transfer support 3 that extends beyond the periphery of the article 1 such that the sucking of air through a work bench 2a is capable of

Art Unit: 1734

pulling the transfer support 3 and covering means 4 into intimate contact with the work bench and the article 1 (Figures 1-5).

Regarding applicant claim 41, although neither Fenzi nor Deroode specifically disclose that the transfer support is removed handling and/or installation, the skilled artisan would have appreciated the advantages of leaving the transfer film in place until utilization by the end use motivated by the fact that the transfer support would protect the decorated surface from marring by scuffs, scrapes and bumps during the time period between application, storage and final use. Furthermore, the skilled artisan would have appreciated the utility of leaving the transfer support in place until final use motivated by the fact that it is well known in the art that decorative bezels are commonly provided with a removable plastic protective film that remains over the bezel until removed by the end user.

Regarding applicant claim 38, Fenzi, Deroode and Okuno disclose that the transfer support comprises a sheet which is placed above the article.

Regarding claims 48 and 50, Fenzi discloses that the temperature and time parameters utilized during the heating step may be up to 280°C and from 30 seconds to 30 minutes, respectively (column 2, lines 57-51).

Regarding applicant claim 39, Fenzi discloses that the work bench is horizontally translatable (column 5, lines 56-61) and although he does not specifically disclose that the work bench is stationary during covering, the skilled artisan, given the structure and outlay of the Fenzi apparatus, would have appreciated that the work bench would remain stationary during the covering step motivated that the work bench of Fenzi is moveable between one of two positions: a set-up position and a transfer position (Figure 4).

(5)

Claims 43 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as combined in section (4), above, in further view of U.S. Patent No. 4,923,847 to Ito et al.

Deroode, as combined in section (4), above, discloses a method for the sublimation transfer decoration of a substrate by way of a heat and vacuum pressure. Although he discloses that the support film 15 making up the transfer support may be comprised of materials such as polypropylene, polyester, silicone, and polycarbonic materials such as PTFE (column 4, lines 18-

Art Unit: 1734

20), he does not specifically disclose, as per applicant claims 43 and 45, that the support material 15 is composed of a thermoformable plastic material such as polyvinyl alcohol.

Ito et al., however, also drawn to thermal transfer methods, discloses a transfer support which comprises support or base film 1 on which is carried a transfer dye. Ito et al. discloses that the base film 1 may comprise papers or films such as condenser paper, aramide film, polyester film, polystyrene film, polysulfone film, polyimide film, *polyvinyl alcohol film* (emphasis added), and cellulose films (column 4, lines 65-68; column 5, line 1; Figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize a thermoformable plastic material such as polyvinyl alcohol film, as taught by Ito et al., in place of the films (polyester, etc.) disclosed by Deroode motivated by the fact that Ito et al. discloses that polyvinyl alcohol films are known for use as supports for sublimation transfer films and furthermore by the fact that Deroode discloses that it is self-evident that other materials besides those disclosed by him may be used (column 4, lines 21-23).

(6)

Response to Amendments and Arguments

The amendments and arguments filed December 16, 2002 are acknowledged. Applicant's arguments with respect to claims 12-21 and 30-34 have been considered but are moot in view of the new ground(s) of rejection.

(7)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry A. Lorengo whose telephone number is (703) 306-9172. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

J. A. Lorengo
Primary Examiner
AU 1734

January 13, 2003